



Water & Environment Sector PROJECT PROFILE

June 2011



Existing wastewater treatment plant at Mafraq.

Upgrading Mafraq Wastewater Treatment Plan

BACKGROUND

Mafraq is a provincial capital of 60,000 people in northern Jordan, about 15 km from the Syrian border. Mafraq's existing WWTP, approximately 6 km north of city, utilizes stabilization ponds for wastewater treatment on a 37-hectare (ha) site. The plant began operation in 1988 and has consistently failed to meet Jordanian standards for stream (wadi) discharge. Equipment is seriously deteriorated, and sewage exceeds design capacities.

The main objective of this project is to prepare a final design for the upgrading of the Wastewater Treatment Plant based on a concept design prepared under another contract, prepare the bidding documents, conduct a host country competitive process to select a construction contractor, and finally supervise construction of the Plant.

USAID supported the feasibility study and design for upgrading the existing wastewater treatment plant, and is currently funding construction to upgrade the plant to a capacity of 6,550 m³/day through simple, low tech improvements. This approach is intended to demonstrate a potential model for upgrading small treatment facilities throughout Jordan. Reuse will continue to be an option for small wastewater treatment facilities, where applicable, and the potential to meet discharge standards offers environmental protection for Jordan's wadis where reuse is not practical.

ACTIVITIES

- Constructing new units within the plant to meet effluent standards for wadi discharge and restricted agricultural reuse until the year 2025
- Supervising construction
- Developing local capacity in designing and constructing low tech wastewater treatment plant
- Reducing demand for over-used groundwater resources providing an alternative source of irrigation water to local farmers
- Reusing the reclaimed water to generate income to local people
- Preventing groundwater contamination by improving the quality of the effluent from the plant

PROJECT SNAPSHOT

Implemented by: Engicon, NA
Water Systems LLC

Duration: 2007 – 2013

Total Funding: \$24.9 million (design and construction)
USAID - \$21.4 million
WAJ - \$3.5 million

Beneficiaries: 82,000 Jordanians

Geographic Coverage: Mafraq



USAID | JORDAN

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PROGRESS & ACHIEVEMENTS

- Completed design and feasibility studies for upgrading the plant
- Construction contract to be awarded in June 2011, with construction to begin soon

PARTNERS

- Engicon
- NA Water Systems LLC
- Water Authority of Jordan

CONTACT:

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